

REMARKS

I. Status of Claims

Claims 1-5 and 9-26 are pending in the application.

Claims 1 and 14 are amended to recite that the content of the dispersion stabilizer is from 6 to 20.7 % by weight, and the concentration of the tin-doped indium oxide fine particles is 10% by weight or more. Support for the amendments can be found in the specification at, for example, working Examples 1-6 and 10-12. Claims 1 and 14 are further amended to recite only a dispersion stabilizer, and not a plurality of dispersion stabilizers.

Claim 5 is amended to recite that the dispersion stabilizer contains at least one atom selected from the group consisting of nitrogen, phosphorus, and chalcogen

Claim 9 is amended to recite that the amount of tin-doped indium oxide fine particles is 95% by weight or less, with support in the specification at, for example, page 28, lines 3-5.

No new matter is added. Accordingly, Applicants respectfully request entry and consideration of the Amendment.

II. Response to Claim Rejection under 35 U.S.C. § 112, second paragraph

Claims 1-5 and 9-26 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Specifically, the Examiner rejects claim 1, because the phrase “dispersion stabilizer” at line 15 of claim 1 lacks clear antecedent basis. Moreover, the Examiner requests clarification as to whether the phrase “dispersion stabilizers” at lines 3-4 and line 12 of claim 1 is related to the phrase “dispersion stabilizer” at line 15 of the claim, and whether the amount of dispersion stabilizer refers to the amount of each one of the plurality of dispersion stabilizers recited in claim 1, or the combination of all the dispersion stabilizers. Regarding claim 5, the Examiner requests clarification as to the meaning of the phrase “the dispersion stabilizer is a

compound having at least one selected from the group consisting of nitrogen, phosphorus, and chalcogen atoms,” in comparison with the dispersion stabilizer recited in claim 1.

Claim 1 is amended to recite a dispersion stabilizer, thus specifying that a plurality of dispersion stabilizers is not used. Moreover, claim 5 is amended to recite that the dispersion stabilizer contains at least one atom selected from the group consisting of nitrogen, phosphorus, and chalcogen, thereby clarifying that the dispersion stabilizer itself contains a hetero atom.

In view of the above, Applicants submit that claims 1 and 5 satisfy the requirements of 35 U.S.C. § 112, second paragraph. Claims 2-4 and 9-26 also satisfy the requirements of 35 U.S.C. § 112, second paragraph, at least by virtue of their dependence from claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of the § 112, second paragraph rejection of claims 1-5 and 9-26.

III. Response to Claim Rejection Under 35 U.S.C. § 103(a)

Claims 1-5 and 9-26 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kondo (U. S. Patent 6,329,061 B2) in view of Kobata et al. (U. S. Patent 6,673,456) and Mont et al. (U. S. Patent 4,027,069).

Applicants respectfully submit that claims 1-5 and 9-26 are patentable over Kondo in view of Kobata and Mont, at least for the following reasons.

Hagiwara Declaration Filed May 26, 2009, is commensurate with the scope of the claims

Applicants submit that the Hagiwara Declaration filed May 26, 2009, is commensurate with the scope of the present claims for at least the following reasons.

In the Hagiwara Declaration, the method for preparing samples was explained as follows.

“As shown in reference Table 1, ITO fine particles, dispersion stabilizers including 2-ethylhexanoic acid, acetylacetone, and dispersion stabilizer 1, an organic solvent, and triethylene glycol di-2-hexanoate

(3GO) were mixed and dispersed to prepare a dispersion of ITO fine particles.”

Therefore, dispersion stabilizers including 2-ethylhexanoic acid, acetylacetone, and dispersion stabilizer 1 were used to prepare a dispersion of ITO fine particles. That is, all the samples (Example 1 and Comparative Examples 1 to 4) commonly include 2-ethylhexanoic acid, acetylacetone, and further include the dispersion stabilizer 1. Reference Table 1 shows the compound name of the dispersion stabilizer 1 contained in each of the samples. Accordingly, Example 1 includes the combination of chelate, organic acid, and phosphate ester-based compound as the dispersion stabilizers, and thus, the Hagiwara is commensurate with the scope of the claims.

Patentability of Claims 1-5 and 9-26

The dispersion of tin-doped indium oxide fine particles of claim 1 has the following features:

- (1) the dispersion stabilizer includes chelate, organic acid, and phosphate ester-based compound;
- (2) an organic solvent containing at least one alcohol as a main component is included; and,
- (3) the content of the dispersion stabilizer is from 6 to 20.7% by weight, and the concentration of the tin-doped indium oxide (ITO) fine particles is 10% by weight or more.

When both (1) the dispersion stabilizer containing chelate, organic acid and phosphate ester-based compound, and (2) the organic solvent containing at least one alcohol as a main component are included, as well as the feature (3) fulfilled, the ITO fine particles are dispersed uniformly without becoming agglomerated particles. As a result, solvent shock can be prevented. Consequently, as shown in the working Examples in the specification and the

Hagiwara Declaration filed May 26, 2009, excellent values can be obtained for all of the following: visible light transmittance (Tv), the solar radiation transmittance (Ts), the haze value, the reflection yellow index (reflection YI), and the Reflection measured value, which is a significant effect.

In contrast, in the working Examples of Kobata, although the use of the combination of chelate, organic acid, and phosphate ester-based compound, i.e., feature (1) of the present claims, is disclosed, Kobata does not teach or suggest feature (3). The following Reference Table¹ shows the content of components of the working Examples of Kobata, which include the combination of chelate, organic acid, and phosphate ester-based compound.

Reference Table

	Contents	
	(parts by weight)	(weight %)
plasticizer	40	94.31 to 98.88%
tin-doped indium oxide (ITO) fine particles	0.05, 0.3, 1, 2	0.12 to 4.72%
chelate	0.1	0.24 to 0.25%
calboxylic acid	0.1	0.24 to 0.25%
polyphosphate ester salt	No description regarding content (Applicants assume that the content was 0.5 weight %.)	0.5%

¹ The Reference Table does not include the content of Comparative Examples 3-5 of Kobata, because Comparative Examples 3-5 do not include a chelate. See, for example, column 21 and Table 3 of Kobata.

As shown in the Reference Table, in the working Examples of Kobata, which include the combination of chelate, organic acid, and phosphate ester-based compound, the content of the ITO fine particles is assumed to be in a range of 0.12 to 4.72%. Therefore, in the working Examples of Kobata, the dispersion of tin-doped indium oxide fine particles which fulfills both of the features (1) and (3) is not disclosed.

Furthermore, as shown in the Reference Table, the content of the ITO fine particles in the working Examples of Kobata is much lower than that defined in feature (3) of the present claims. In the presently claimed invention, the ITO fine particles is included in an amount more than twice the amount of ITO fine particles present in the working Examples of Kobata, resulting in excellent values for all of the visible light transmittance (Tv), the solar radiation transmittance (Ts), the haze value, the reflection yellow index (reflection YI), and the Reflection measured value.

As described above, in the working Examples of Kobata, dispersions of tin-doped indium oxide fine particles which fulfill both of the features (1) and (3) are not exemplified. Furthermore, in Kobata, there is no description or suggestion of the effect of obtaining excellent values for all of the visible light transmittance (Tv), the solar radiation transmittance (Ts), the haze value, the reflection yellow index (reflection YI), and the Reflection measured value when a large amount of the ITO fine particles is included.

Accordingly, a person skilled in the art would not be motivated to fulfill both features (1) and (3) of the present claims, based on the teachings of Kobata.

Kondo discloses the use of alcohol; however, there is no description or suggestion of the features (1) and (3). Mont does not cure the above discussed deficiency in Kobata and Kondo.

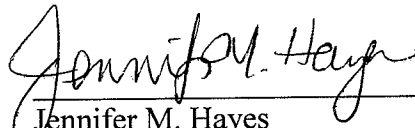
In view of the above, Applicants respectfully submit that claim 1 is patentable over Kobata in view of Kondo, and in further view of Mont. Claims 2-5 and 9-26 are also patentable, at least by virtue of their dependence from claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of claims 1-5 and 9-26.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Jennifer M. Hayes
Registration No. 40,641

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: January 13, 2010